

LB Multi Channel CATV Receiver

LB series multi channel CATV receiver, features 47~862MHz bandwidth, output level from $V_o=88\text{dB}\mu\text{V}$ (4Ch $\text{Pin}=-2\text{dBm}$) to $V_o=103\text{dB}\mu\text{V}$ (2Ch $\text{Pin}=-2\text{dBm}$), suitable for FTTP, FTTB, FTTN, FTTC, as RFTV broadcast network's RX unit. With the special low noise matching circuit Under 3.8% modulation, very low optical power is needed to achieve 45dB CNR. When transmitting in full channels and with receiving power of -10dBm , the CNR can still reach high index of 45dB.

The product built-in RF inter-stage gain adjustment. All receiving optical power in the range of $+3\text{dBm}$ to -12dBm has good linearity. According to different receiving optical power, the user can choose high CNR and suitable output level.

The following options are available for different applications.

- F: built-in channel filter, RFTV operating in 1550nm wavelength.
- C: built-in CWDM, RFTV operating in 1550nm wavelength, and reach GEPON ONU through 1310/1490nm wavelength.



FEATURES

- Miniature design with multiple outputs.
- Extra-low noise (3.8% modulate, -10dBm receive, $\text{CNR} \geq 45\text{dB}$)
- Receiver Optical power in the range of $+3\text{dBm}$ to -12dBm with excellent linearity
- RF 47~862MHz with good flatness ($\text{FL} \leq \pm 1.0\text{dB}$)
- Built-in inter-stage gain adjustment, high CNR and suitable output level can be achieved according to different receiving optical power.
- Zinc die-casting metal housing
- Low power consumption, high cost performance

SPECIFICATIONS

Optic Features			Remark
Operating wavelength	1210~1600	nm	LB4CR4888
	1260~1600		LB4CR48100 & LB2CR48103
	1540~1560		-F & -C Options
Input wavelength	1310, 1490/1550	nm	LB4CR4888-F & -C
Pass wavelength	1310, 1490	nm	LB4CR4888-F & -C,
Channel isolation	>40	dB	LB4CR48100-C,
Responsivity	>0.85	A/W	LB2CR48103-C - -F & -C options
	>0.9		1310nm
Receiving power	+3~ -12	dBm	1550nm
Optical return loss	>55	dB	
Optical fiber connector	SC/APC		LC/APC for -C option
RF Specifications			
Bandwidth	47-862	MHz	
Flatness	< ± 1.0	dB	
Output level (nominal/max)	88.0	dBuV	Pin: -2dBm , LB4CR4888
	100		Pin: -2dBm , LB4CR48100
	103.5		Pin: -2dBm , LB2CR48103

<i>Output level adjustment</i>	0-18	dB	MGC
<i>Return loss @ 47-862MHz</i>	14	dB	47-862MHz
<i>Output impedance</i>	75	Ω	
<i>Output port number</i>	2		LB2CR48103
	4		LB4CR4888 & LB4CR48100
<i>RF tie-in</i>	F-Female		
<i>Test channel</i>	PAL D/59Ch	Ch	NTSC /80Ch
<i>OMI</i>	3.8	%	
<i>CNR1</i>	56.6	dB	Pin= -2dBm
<i>CNR2</i>	48.5	dB	Pin= -8dBm
<i>CTB</i>	<-63	dB	Vo<88dB μ V-LB4CR4888
<i>CSO</i>	<-63	dB	Vo<100dB μ V-LB4CR48100
<i>HUM</i>	<-60	dB	Vo<103.5dB μ V-L2CR48103
<i>General Specifications</i>			
<i>Power supply</i>	DC +12V	V	LB4CR4888
	DC +24V		LB4CR4100 & L2CR48103
<i>Power consumption</i>	<3	W	+12VC, 190mA for LB4CR4888
	<10		+24VC, 400mA for
<i>Working temperature</i>	-20 ~ +50	$^{\circ}$ C	LB4CR48100 & L2CR48103
<i>Storage temperature</i>	-40 ~ +85	$^{\circ}$ C	
<i>Relative humidity</i>	5-59	%	
<i>Dimension</i>	118×73×29	mm	LB4CR4888
	133×65×58.5		LB4CR48100 & L2CR48103

ORDERING INFORMATION

PN	RF Power (dBuV)	Number of RF outputs	SNMP Network Management
LB2CR4803-cdd-x	103	2	
LB4CR4888-cdd-x	88	4	
LB4CR4800-cdd-x	100	4	
c:	C	1310/1490 & 1550nm CWDM filter	
	F	1550nm filter	
dd:	SA	SC/APC	
	LA	LC/APC	with SNMP Network Management
X:	M		without SNMP Network Management
	N		